302 [765] sum, woman bound string around head, hair rolled up to project over string, thus shading face. At death of husband woman burned back hair to neck length (Gayton, 1929, pl. 95a, b). Bulb of soaproot (ho·olo·hpi·l), Lathoe pomeridiana (DC) Raf., [824] pounded, or roots Chenopodium californicum Wats. 388 (ho·oha·l) pulverized by rubbing on rock, and [515] used for shampoos; later these and inside of fruit [296] of Cucurbita foetidissima HBK (ɪihabɪ·l) used also to wash cotton clothes. Women brushed hair every day; Garcés comments (p. 282), "women . . . . take great care of the hair and do it up in a topknot (copéte)," probably referring to rolling up of hair to project over string (above). [515] Lice removed by washing hair with alkali (pi·šil) solution and letting powder stay on scalp for [301] several days. At dances women put loose eagle down in bangs. Children wore hair loose, girls of 5 having bangs.

303 Brush (wɪŋɪt) made from fibrous outer sheath of soaproot; bulb dug in March-April when plant green, outer sheath removed, shredded, and 3 bunches of fibers, each 3/4 in. wide, 4-5 in. long, twined together at one end with native string to form flat, narrow brush. This hair- [413] brush similar to one women used when pounding meal, tobacco, except that mealing brush was wider, consisting of 4 bundles of fibers twined together. Museum specimen 1-19800 has fibers wrapped at lower end with sinew (?) to form triangular handle; said to have been "used for hair and flour." Porcupine tails, pine cones, pine needles never used for brushes.

302 Nails kept short by filing them on piece of rough rock, or else allowed to grow long, break off.

515 Both sexes bathed frequently, summer and winter, in pools at springs or in streams; "the young men are fine fellows, and the women very comely and clean, bathing themselves every little while" (Garcés, 282).

301 Ornaments.- Necklaces of white clamshell disks (tugumbal) worn by women only, chiefly at dances. Small concave white shell beads, olivella shells, long shell cylinders (hobo'apɪn) made from colum- [177] nella of giant clam (?), and in historic times red, blue, black glass beads used in combination [439] for necklaces (pl. 6b). Both shell and glass beads, shell cylinders obtained from Chumash, who made shell beads, and also to some extent from Yokuts.

Nose plug (mupipugišt) made from shell cylinder; 2-3 in. long, 1/4 in. thick; worn by women only "when they danced." Women also wore strings of small clamshell beads in nose (FP). Earrings (naŋgawili'at) consisting of short strings of clamshell beads worn by women only. Bracelets (mašabu·nun) of clamshell or other beads worn by young girls. Men "never wore anything" in way of bead ornaments (SM, FP).

302 Facial decoration.- Paint made from red earth (yahawa·l) mixed with water, smeared over face by

372 Fire drill.- Hearth (a·da·wa·yat) for fire-drill made from piece of dry cottonwood root (utu·lan wi·šin) from Populus fremontii; single hole in hearth; powder drained into channel leading to edge of hearth. Drill (a·da·wa·yišt) 2-2 1/2 ft. long, made from stalk of Baccharis glutinosa Pers. or B. viminea DC. Shredded cottonwood roots used for tinder.

●413 Arrow straightener.- Arrow straightener (u·gišt) similar to Cahuilla straightener
[171] (Kroëber, Handbook, 530, pl. 49d); made from soft rock (steatite?; slate, FC), obtained near
324 Chimney canyon in Tübatulabal area. Central groove (loho·wi·nil) and incised lines on top surface of straightener cut with flint knife.
[171] SM's straightener, duplicate of steatite specimen from s. San Joaquin valley (Gifford and Schenck, pl. 17o), 3 in. long, 1 1/2 in. wide, 1 1/2 in. high at center, 1 in. wide at ends; single transverse groove 1/2 in. deep cut across top center, dividing convex top surface into 2 halves. Series of diagonal parallel lines, incised to depth of 1/16 in., cover one of halves of top surface; on other half series of 11 short parallel ridges cut out in low relief; incised lines and serrated ridges used for same purpose
[171] as noted among Yokuts (Kroeber, Handbook, 530). FC's straightener round, with 2 grooves; lacked incised lines, ridges; specimen 1-19802,4 in. long, 1 1/2 in. high, has single groove, no lines; specimen 1-19803 is 4 in. long, 1/2 in. high, has 2 grooves; SM said some little individual variation in size, markings on straighteners, depending on man's preferences.

413 Netting shuttle.- No information obtainable;
286 SM thought some variety of shuttle formerly used.

FIRE

221 In winter, small fire inside dwelling served for cooking, heating, and lighting house at night;
372 in summer, cooking fire often built outside un-
373 der shade. Women also often cooked acorn mush at spot where they leached meal. During summer hand games played at night around fire, outside in open; brush enclosures illuminated at night by fire built in center; sweat house heated, illu-
[756] minated by open fire. Shamans used small open fire during shooting contests. Torches used for hunting quail (p. 13), but not for lighting.

372 Firemaking.- Fire made by men only, with
462 simple hand drill (supra); man knelt (Kroeber,
177 Handbook, 822, pl. 78); SM said it took from 15-20 minutes to make fire with drill, but this seems unlikely. In 19th century Tübatulabal learned to make fire from Mexicans by striking upper edges of 2 white quartz strike-a-lights (ki·li·l) together (fig. 7a); "the Mexicans used one of these pieces of stone against a piece of

855 of time, child up to age 7-8 yrs. generally ac-
[857] companying mother wherever she went.

Child of 7, 8 shown navel cord by mother; no
852 reason ascertainable; mother then buried cord outside house (SM) or kept it (FP); LT had lost cord belonging to her eldest son, but no misfortune attributed to this fact.

572 Two unrelated boys or 2 unrelated girls, when
857 about 8 yrs. old, often assumed chum relationship (na·mun); boys exchanged bows, arrows; girls, bracelets; this relationship lasted into adult life. Chums used each other's belongings freely, lived at each other's homes "as much as they wanted to," went out hunting and to get wood together; in later life would never assume face-washing relationship (p. 68) toward each other;
[582] man might marry his chum's sister, but this not obligatory.

852 Children approaching puberty frequently lectured by old man, woman relative at sundown, outside house; no sand paintings drawn. Speech to boys taken in text (Voegelin, 1935 b, 219); FP gave following speech for girls:

539 "Listen to me! I am an old woman and know what to do. Treat the people kindly. Don't be stingy; give visitors food; when they go home they will say good things about you. Don't talk about others (gossip maliciously). Don't stare at a person when you see him coming; you will
[888] see him when he arrives. Treat the old people
[841] well; do not dislike them; the old men too. Don't eat meat or grease when you have your menses; drink only warm water then. Use a stick to scratch your head at this time; if you don't, your hair
[806] will fall out. Don't be angry all the time; if you are, you will get old quickly."

881 Adolescence.- Boys' adolescence ceremony lack-
276 ing; both boys, girls after puberty enjoined to take jimsonweed by old people, to obtain "life";
776 many did, but this not obligatory. SM said boys took ants, tobacco for same purpose, but that
[757] these were "too strong" for girls; FP had, however, taken all 3 for specific ailments and in hopes of obtaining "life" (see Autobiography of FP).

[262] At first menses girl ate no meat, grease, or salt for one month; drank only warm water for 6 days; during subsequent periods observed these taboos for length of period only. If menstruating woman ate meat, her husband would not see game (SM); violation of food taboos gave woman cough
[413] she would "never get over" (MM). Scratching stick used. No isolation of girl in separate hut; informants disagreed whether pit used; SM in 1931 said girl at first menstruation stayed in house, being put over little hole which had hot rocks underneath "like the hole a woman used when she had a baby," but that girl was not covered with anything; mother or old woman took care of girl. In 1932 SM denied pit was ever used, except at childbirth. FP said girl went about her ordinary occupations during first period; no pit used.

3: Voegelin E-5 (1931-1933) 1935
NS22 Tübatulabal NS22

9. The old woman says, "So Bear killed her." 10. The old woman is crying; then she went to look for her; she arrived there; no woman (is) there when the old woman arrived. 11. The old woman says, to Migitih, "Where are you?" she says. 12. Migitih whistled. 13. The old woman heard him when he whistled; she went, going to see him. 14. The old woman saw his blood in the grass; she grabbed the blood; she brought it to her own house. 539X

15. She went and took it; she grabbed a big basket there; she filled (the basket with) water. 16. She put his blood in the basket and then covered the basket. 17. Then, in the middle of the night, the old woman heard Migitih when he made a noise and she went out and Migitih is making a noise in the basket and the old woman went from there back in again. 18. The next day she saw Migitih; he is sitting in the basket. 19. The old woman grabbed Migitih, a little baby; she wrapped up Migitih in the skin of a wildcat. 20. Then the old woman takes care of him.

21. Then Migitih grew up; he said to the old woman, "Where is my mother?" he says; "where is my father?" says Migitih. 22. The old woman says, "Don't say (that)," says the old woman. 23. Migitih says, "I want to know." 24. The old woman says, "Good; Bear killed your mother." 25. Migitih says, "Where is Bear?" he says. 26. "Don't say (that)," says the old woman, "Bear (is) a Yumugiwal; he will kill you." 27. Migitih says, "I will kill him; give me the bow with arrows."

28. The old woman gave him the bow with arrows. 29. "Good," says Migitih, "tomorrow I will see Bear." 30. Migitih went in the mountains; he arrived on the top of the mountains. 31. Migitih climbed a big rock. 32. He is standing on the top of the rock. 33. Then he said, "Come, Bear, I want to see you." 34. Then Bear came out from his own hole. 35. Then he saw Migitih. 36. Bear began to grab Migitih; he extended his arms, wanting to grab him. 37. Then Migitih said, "Just a moment," Migitih says. 38. Then Bear stood stock still. 39. Then Migitih says, "Open your mouth." 40. Then Bear opened his mouth very far. 41. "Close your eyes, Bear," says Migitih. 42. Then Migitih took out the arrow-straightener from next to his belly; it is very hot, just like fire; he threw it in the mouth of Bear. 43. Then it went in the stomach of Bear. 44. Bear ran far away. . . . Bear died; Migitih killed Bear. 45. Migitih got down from the rock; he went to see Bear. 46. Migitih skinned him; he grabbed the skin; he arrived at his own house. [413]●

47. The old woman saw the skin of Bear; Migitih is saying, "There is the skin of Bear." 48. "Good," says the old woman. 49. Migitih says to his own mother's mother, "More Yumugiwal are living in the mountains; I want to go to see (them)." 50. The old woman is saying, "The Yumugiwals live there." 51. "Tomorrow I will go to see (them)," (says Migitih).

52. Migitih went; he arrived; in the house are living one old woman, and Coyote, and the Cannibal Woman. 53. Migitih killed the Cannibal Woman. 54. "Good," says Coyote; "the Cannibal Woman (is) a Yumugiwal; she kills people."

55. Then Migitih came to his own house. 56. The old woman is saying, "Did you kill Yumugiwal?" says the old woman. 57. "Yes," says Migitih. 58. "Yumugiwal are finished," says the old woman. 59. "Good," says Migitih. 60. Already it got ended.